

WHAT IS CLAIMED IS:

1. A device, comprising:

a connection manager to:

generate a connection type and connection specification for new connection requests;

define classification rules to allow classification of packets from applications to connections; and

a bearer manager to:

obtain bandwidth allocations for the connections from a central coordinator;

map connections to a corresponding bandwidth allocation.

2. The device of claim 1, the device further comprising a transport system to provide interface between applications and the connections.

3. A method of establishing communications, the method comprising:

determining that a connection needs to be established;

generating a connection type and a connection specification;

requesting a connection from a central coordinator;

if the connection is granted, associate a connection identifier with an originating service access point; and

associate predefined parameters with the connection identifier.

4. The method of claim 3, determining that a connection needs to be established further comprising receiving a request from an application for a connection.

5. The method of claim 3, determining that a connection needs to be established further comprising determining that a connection does not exist and automatically establishing a connection.

6. The method of claim 5, generating a connection type further comprising generating a connection type based upon a service access point of an application.

7. The method of claim 5, generating a connecting type further comprising generating a connection type based upon messages received from an application requesting a traffic flow.

8. The method of claim 3, requesting a connection further comprising requesting a connection selected from the group comprising: continuous grant service, periodic grant service and aperiodic grant service.

9. The method of claim 8, requesting a connection further comprising requesting a connection selection from the group comprising: unicast, multicast and broadcast.

10. The method of claim 5, generating a connection specification further comprising generating a connection specification based upon information within protocols encapsulating application data received through the service access points
11. The method of claim 5, generating a connection specification further comprising  
5 generating a connection specification based upon a direct specification from an application.
12. The method of claim 3, generating a connection type further comprising generating a connection type as one of the group comprised of continuous grant, periodic grant, and priority aperiodic grant.
- 10 13. A method of establishing a multicast connection in a centralized communication system, the method comprising:  
creating multiple point-to-point connections between a source device and at least two destination devices;  
replicating application data such that a replica exists for each destination device; and  
15 transmitting the replicas on the point-to-point connections.
14. The method of claim 13, wherein at least two devices further comprises less than all possible destination devices.
15. The method of claim 13, wherein at least two devices further comprises all possible destination devices for the application data.
- 20 16. A method of establishing a broadcast connection, the method comprising:  
requesting a bandwidth allocation from a central coordinator;  
receiving an indication of a time and size of a bandwidth allocation on a broadcast channel;  
transmitting a broadcast message according to the bandwidth allocation time on a  
25 broadcast channel, such that the broadcast message includes any information needed for processing of the received message.
17. A method of monitoring connections, the method comprising:  
determining whether a traffic flow on a connection has attributes that conform to predefined attributes in a connection specification;  
30 if the traffic flow does not have the attributes that conform to the predefined attributes:  
informing a connection manager; and  
performing a remedial action on the connection.
18. The method of claim 17, determining whether a traffic flow has attributes that conform  
35 further comprising monitoring traffic flow on a receiving device.

19. The method of claim 17, determining whether a traffic flow has attributes that conform further comprising monitoring traffic flow on a transmitting device.
20. The method of claim 17, performing a remedial action further comprising informing a central coordinator of a violation and the central coordinator requests a reconfiguration of  
5 a bearer carrying the connection.
21. The method of claim 17, performing a remedial action further comprising informing a central coordinator that prevents sharing of bandwidth between the connection and other connections or control channels.
22. The method of claim 17, performing a remedial action further comprising generating a  
10 new connection specification and informing a peer connection manager of the new connection specification.